



DEFENSE CENTERS OF EXCELLENCE
For Psychological Health & Traumatic Brain Injury

Improving Surveillance of Suicides

The Psychological Autopsy

Lanny Berman, Ph.D.
Executive Director,
American Association of Suicidology

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Surveillance

“The ongoing and systematic collection, analysis, and interpretation of outcome-specific data for use in the planning, implementation, and evaluation of public health practice.”

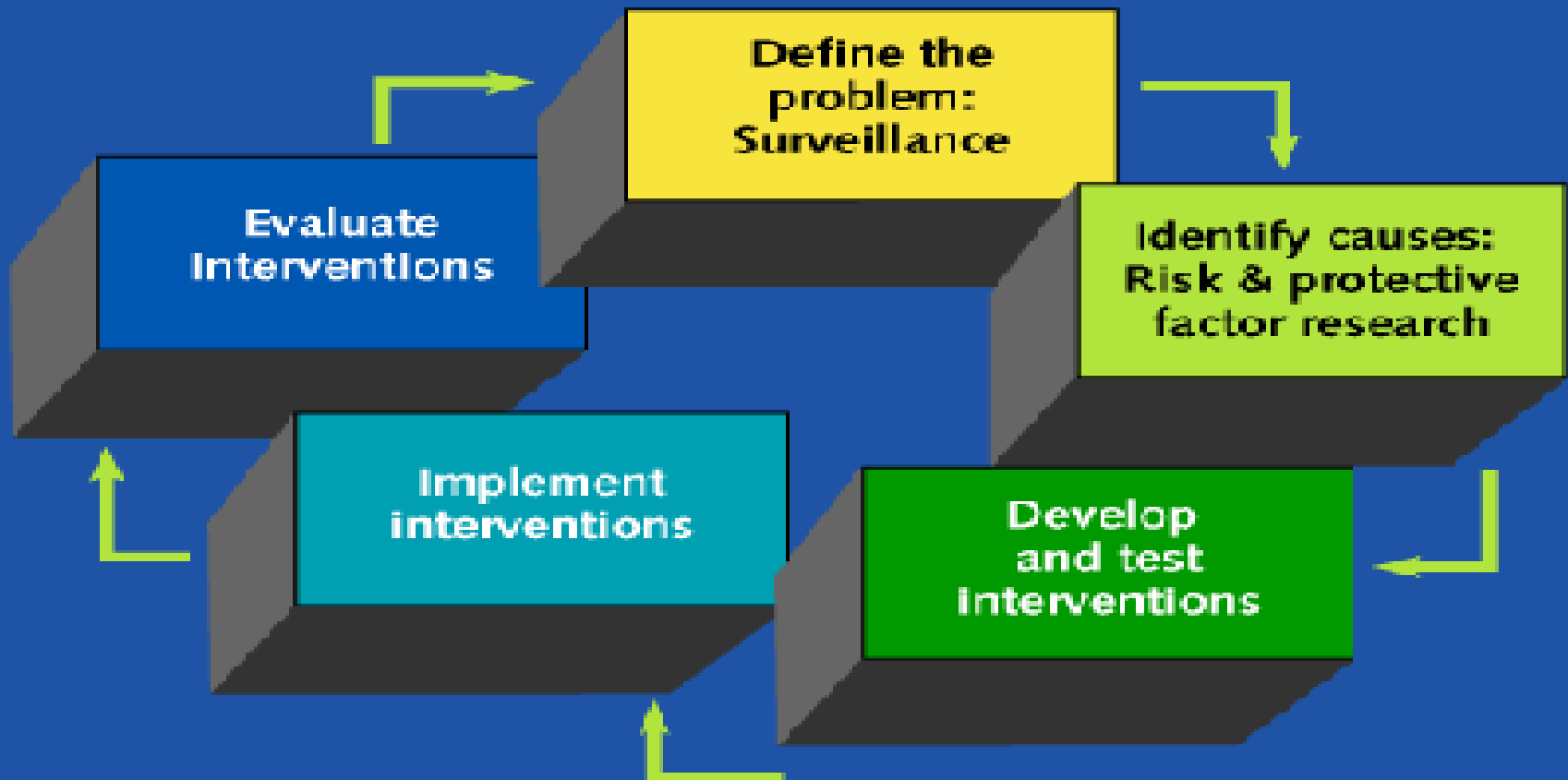
Berkelman, 1988





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The Public Health Approach to Prevention





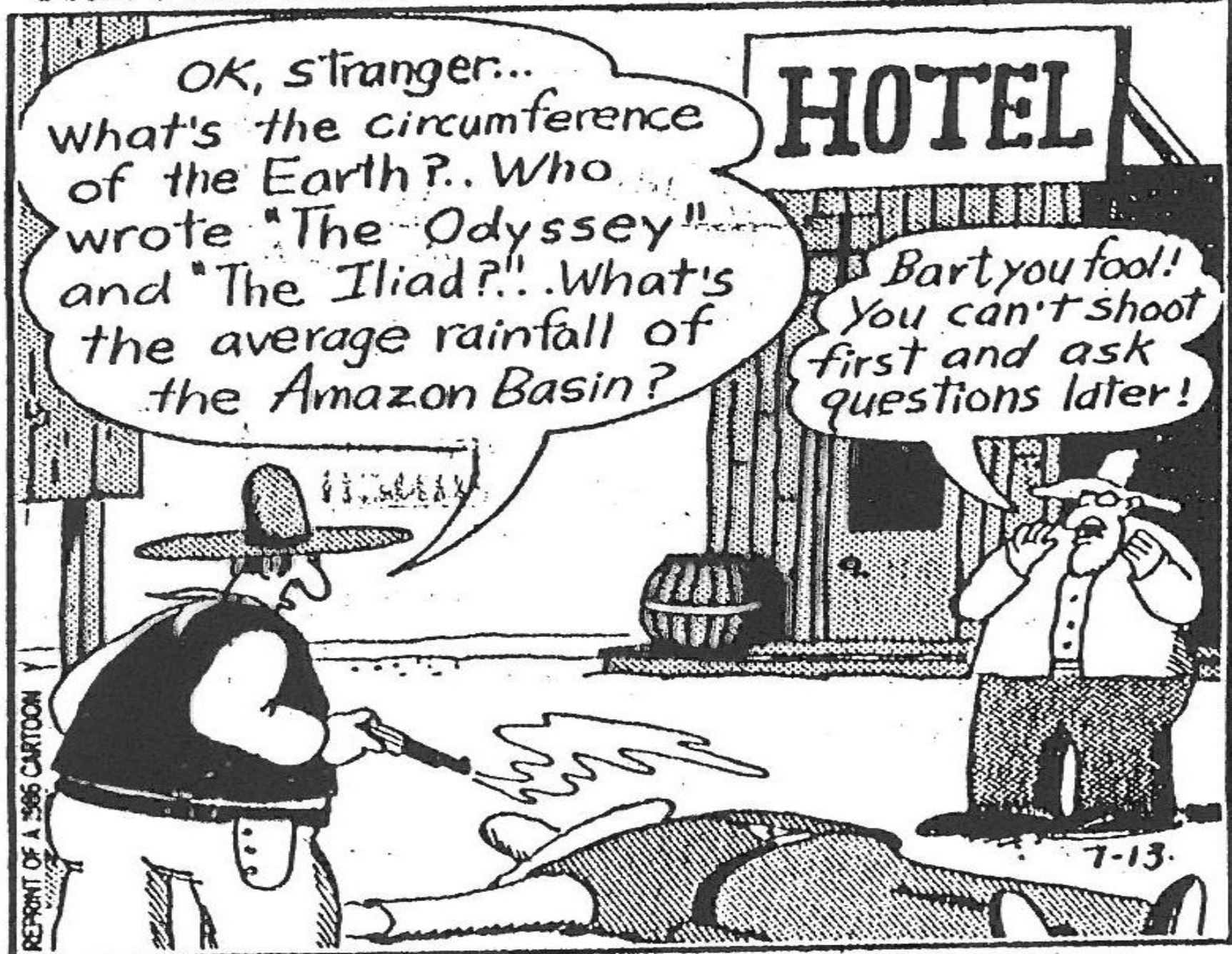
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DoDSER

(Department of Defense Suicide Event Report)

- **Standardized surveillance system across all services (2008, 2010 Rev)**
- **All suicides and undetermined deaths where suicide has yet to be ruled out**
- **Medical and personnel records**
- **Used to understand factors that give understanding to suicide, hence inform prevention efforts and policy**







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DoD SER

Methodology/Limitations

- **Behavioral health providers, health care providers, or command-appointed representatives**
 - Inconsistent in qualifications, training...
- **Typically – single interview, personnel records, and, possibly, medical records**
 - Minimal use of archived records; family members rarely interviewed...





DoD SER Limitations

- **Missing Data Points (2010 data):**
 - $>1/3^{\text{rd}}$ (39.5%) had **0-1** primary data points missing or unknown
 - $>1/3^{\text{rd}}$ (38%) had **4+** data points missing or unknown
 - But reported data suggests more of a problem...





DoDSER Limitations

41	Prior to the event, did the patient/decedent communicate potential for self-harm? (other than a suicide note)	Prior to the event, did the patient/decedent communicate potential for self-harm? (other than a suicide note)
42	What was the patient/decedent's primary motivation for performing this event?	Don't know
43	Duty environment/status at time of event? (check all that apply)	Other: PCS MOVE
44	Please describe the general sequence of events leading up to the incident/attempt/completion and discovery/intervention.	[REDACTED]
45	...Medical Treatment Facility? If yes, how long prior to the event? Is the medical location military-run or civilian-run?	No
46	...Substance Abuse Services? If yes, how long prior to the event? Is the medical location military-run or civilian-run?	No
47	...Family Advocacy Program? If yes, how long prior to the event? Is the medical location military-run or civilian-run?	Don't know
48	...Chaplain Services? If yes, how long prior to the event? Is the medical location military-run or civilian-run?	Don't know
49	...Outpatient Behavioral Health? (including deployment behavioral health services)? If yes, how long prior to the event? Is the medical location military-run or civilian-run?	Don't know
50	...Inpatient Behavioral Health? (including deployment behavioral health services)? If yes, how long prior to the event? Is the medical location military-run or civilian-run?	Don't know
51	...been diagnosed with any Mood Disorder (e.g., major depression, etc.)? ...been diagnosed with Bipolar Disorder? If yes, how long prior to the event? ...been diagnosed with Major Depression? If yes, how long prior to the event? ...been diagnosed with Dysthymic Disorder? If yes, how long prior to the event? ...been diagnosed with any other Mood Disorder?	Don't know
52	...been diagnosed with any Anxiety Disorder (e.g., PTSD, etc.)? ...been diagnosed with PTSD?	Don't know





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USMC Suicides, 2010, N = 37

% “*Unknown*” on DoDSEER

- Alcohol used during suicide: 46%
- Any drugs used during suicide: 57%
- Communicated Intent: 68%
- Firearm in immediate living environment: 16%
- Taken psychotropic meds: 19%
- History of family behavioral health problems: 54%
- Excessive debt/bankruptcy: 24%





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Limitations

“The DoDSER in its current form is inadequate and insufficient to inform prevention efforts of aid in the reduction of suicide mortality and morbidity.”



The Challenge and the Promise: Strengthening the Force, Preventing Suicide and Saving Lives

Final Report of the
Department of Defense
Task Force on the
Prevention of Suicide by
Members of the Armed Forces

August 2010





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Limitations

- Does not provide valid and reliable data
- Often relies on data only if command is aware
- Does not focus on **acute** risk factors or pathway observations



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Limitations

For example: Acute RFs

- Recent insomnia
- Angry outbursts
- Expressed hopelessness
- Recent recklessness
- Recent excessive substance use



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The DoDSER Does Not Ask about Symptoms or Behaviors

IS PATH WARM?

Ideation – written/spoken/threatened

Substance Abuse – increased/excessive

Purposelessness/Lack of meaning

Anxiety

Trapped

Hopelessness

Withdrawal

Anger/Rage/Seeking Revenge

Recklessness/Lack of concern for consequences

Mood Changes – dramatic





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Limitations

For example:

30. Is there evidence the decedent intended to die?

☐ Yes

☐ No

☐ Don't know

But, if “yes,” purported evidence is not coded



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DoDSER

39. *Please describe the sequence of events leading up to the...completion and discovery...*

Limitations

- **How many observers are needed to answer?**
- **How are responses coded?**

Data is not reported in Annual Reports





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Recommendation 68

- **Standardize DoDSER surveillance throughout the DoD, including specification of qualifications of surveyor and required training**



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Recommendation 71

- **Institute a modified psychological autopsy and root cause analysis protocol...to refine and modify the DoDSER and improve surveillance methods...[with a] focus on the last days of life, development of a pathway to death that enables identification of potential points of intervention...**



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The Psychological Autopsy

The psychological autopsy has become a best practice postmortem procedure to reconstruct the proximate and distal causes of an individual's death by suicide





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AAS USMC Psychological Autopsy Study





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Objectives of the Project

To understand why Marines end their lives

- by suicide
- at the time they do
- in the manner that they do

To prevent future suicide deaths

To improve the DoDSER as a surveillance tool





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Methodology: Psychological Autopsy

- **Focus on the decedent's pathway toward death and last days of life**
- **Interview family, friends, and other respondents knowledgeable about Marines who died by suicide from 2010 to 2012**
- **Identify proximal and distal factors related to the death**
- **Compare data gathered through Psychological Autopsy with data gathered through DoDSER**
- **Propose modifications to DoDSER to better inform targets for prevention**





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Methodology: Psychological Autopsy

- **Training PA Investigators with military experience**
- **Using retired Marine and USMC family survivor of suicide loss to gain entry**





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Potential Study Population

Marines who died by suicide from 2010 to 2012

We will contact 100% of the cases in 2011

If we do not reach the desired sample size of 37 within the 2011 cases, we will sample the cases from 2010 and 2012





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The Psychological Autopsy 2010-2012 Events

2010: N = 37

2011: N = 32

2012: N = 18 (through May)





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Why 37 Cases?

1. RAIL SUICIDE STUDY (FRA FUNDED TO AAS): 182 IDENTIFIED CASES WITH NOK CONTACT INFO

- 77 NO RESPONSE TO LETTER/TEL CALL
- 36 REFUSALS

69:

63 SCHEDULED, 61 COMPLETED, 55
JUDGED USABLE = **30%**

2. BUDGET LIMITATION





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The Psychological Autopsy Non-Interview Data Sources

- Autopsy report (AFME)/Toxicology labs
- Medical records: BUMED
- Legal records
- Non-medical counseling/Substance abuse counseling records
- NCIS investigative report





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Interviewees/Informants

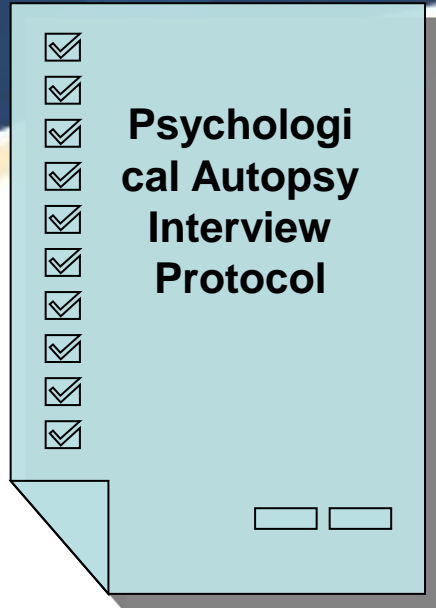
- **Primary respondents**
 - Next of kin (spouse or parents)
 - Front line Supervisor
 - Best friend
 - Roommates
- **Secondary respondents**
 - Peer NCOs
 - Staff Supervisor
 - Chaplain





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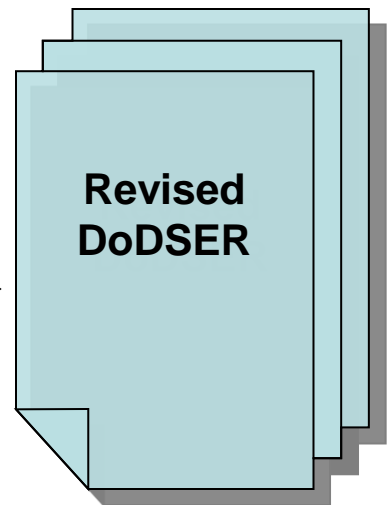


1. Demographics and personal characteristics

2. Warning Signs

3. Answers to Central Questions
(see the following slide)

4. Relation to questions asked on DoDSER





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Primary Questions

Why suicide?

Why at this time?

Why using this method?

Are there potential points of prevention?



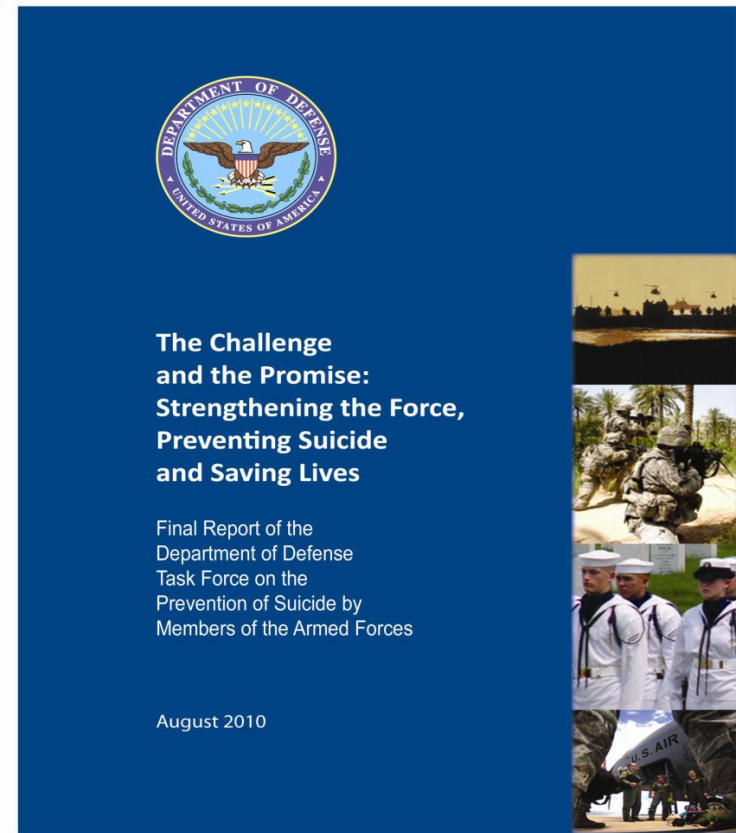


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Bottom Line

Recommendation 71

- Institute a modified psychological autopsy and root cause analysis protocol...*to refine and modify the DoDSER and improve surveillance methods...[with a] focus on the last days of life, development of a pathway to death that enables identification of potential points of intervention...*





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Potential and Logical Next Step

Similar study of suicide attempts to determine similarity/differences compared to those who die by suicide and surveillance efforts to capture data to translate into prevention efforts.





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BERMAN@SUICIDOLOGY.ORG

THANK YOU

